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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,045	02/09/2000	Glenn T. Colon-Bonet	10971158-1	3338

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EXAMINER

DO, CHAT C

ART UNIT PAPER NUMBER

2124

DATE MAILED: 09/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/501,045

Applicant(s)

COLON-BONET, GLENN T.

Examiner

Chat C. Do

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to because label in Figure 3B. The label for box 106 should be " $S = \text{NOT} (P \oplus CI)$ ". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: PKG.

Throughout the specification, the term "PKG" is not clearly defined. A clear definition of the term "PKG" is required.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "PKG value" is mentioned throughout the claim without particularly pointing out the exact PKG value: P value, K value, G value, or PKG values. For the

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examination purposes, the examiner considers the term "PKG value" as "PKG values" which consists of P value, K value, and G values.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1, 3-5, 7-9, 11, 13-15, 17, and 19-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Inoue (U.S. 5,933,362).

Re claims 1, 7, 13, and 19, Inoue discloses an apparatus in Figure 7 for performing addition of a PKG recoded numbers. The apparatus comprises a circuitry (10ba, 10bb, 10c), which configures to receive a first value (Carry-in Signal) and a second PKG value (PTGo) to generate a sum value (So) and a carry value (Co).

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Re claims 3, 8, 14, Inoue discloses the above apparatus that further comprises a first adder (21-00, 20-01, and 21-10) to receive two PKG values (PTGo and PTG1) to generate a PKG value (PTGo) and a carry-out value (C1).

Re claims 4, 9, 15, Inoue further discloses a second adder (22-0) in claim 3 to add the PKG values of the first adder and a carry-in value (Carry-in Signal) to generate a final sum (S0) and a final carry-out (C0).

Re claims 5, 11, and 17, Inoue discloses an apparatus in Figure 7 comprising a circuitry (21-00, 21-10, 20-01, 21-11, and 22-1) to receive a first value and a second value to generate a sum value (S1) and a carry value (C1). The first value (PTGo) and second value (PTG1) are the PKG values.

Re claims 20 and 21, Inoue discloses an apparatus in Figure 7 for performing the PKG addition (21-00, 20-01, and 21-11). The apparatus is configured to receive a first PKG value (PTGo), a second PKG value (PTG1), and generate a PKG sum (PTG1') value and a carry value (C1).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 2, 6, 10, 12, 16, and 18 are rejected under 35 U.S.C. 103(a) as being obvious over Inoue (U.S. 5,933,362) in view of Miller (U.S. 5,706,323).

Re claims 2, 6, 10, 12, 16, and 18, Inoue discloses an above apparatus in Figure 7 for performing addition of a PKG recoded numbers. Inoue does not disclose that the sum value and the carry value are encoded as dual rail values. However, Miller discloses a method of encoding variables into dual rail values in Figure 3. Therefore, it would have been obvious to a person having ordinary skill in the art to encode the sum value and carry value as dual rail values because it would simplify the circuitry and reduce the noise.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. U.S. Patent No. 5,357,457 to Terane discloses an adder with carry look ahead circuit.
- b. U.S. Patent No. 5,627,773 to Wolrich et al. discloses a floating-point unit data path alignment.
- c. U.S. Patent No. 5,889,692 to Wolrich et al. discloses a fast determination of carry inputs from lower order product for radix-8 odd/even multiplier array.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (703) 305-5655. The examiner can normally be reached on M => F from 7:00 AM to 4:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A. Morse can be reached on (703) 308-4789. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Chat C. Do
Examiner
Art Unit 2124

September 9, 2002


KAKALI CHAKI
PRIMARY EXAMINER